

2834 & 2908 North Naomi Street Burbank, CA 91504 • DOHS NO: 1541, LACSD NO: 10181 Tel: (888) 288-AETL • (818) 845-8200 • Fax: (818) 845-8840 • www.aetlab.com

#### Ordered By

Ch2M Hill

1770 Iowa Ave Suite 200 Riverside, CA 92507-

Telephone: (951)276-3003 Attention: Tom Perina Number of Pages 4

Date Received 10/15/2014
Date Reported 10/17/2014

Job Number	Order Date	Client
74730	10/15/2014	CH2M,R

Project ID: 10006-7-100263
Project Name: Omega Chemical
Site: Whittier, CA

Enclosed please find results of analyses of 8 ground water samples which were analyzed as specified on the attached chain of custody. If there are any questions, please do not hesitate to call.

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ C. Raymana

Cyrus Razmara, Ph.D. Laboratory Director

Page 1 of 1

USEPA CLP COC (LAB COPY)

DateShipped: 10/15/2014 CarrierName: Lab Pickup

AirbillNo:

X4X30

CHAIN OF CUSTODY RECORD

Cooler #: DAS#:

Lab: AETL

No: 9-101514-101639-0004

Lab Contact: Jim Lab Phone: 818-845-8200

10/15/2014 08:25 74730.05 14730-03 74×30.06 74730.02 10/15/2014 09:05 74730-06/ 7473000 For Lab Use Only 10/15/2014 12:35 10/15/2014 10:30 10/15/2014 11:35 10/15/2014 08:55 10/15/2014 07:55 10/15/2014 09:50 Collection Date/Time cocation 2 4 9 <del>\_</del> <u>რ</u> 5 ത ထ CH2MHILL - Tom Perina (951) 318-2341
Analysis/Turnaround Tag/Preservative/Bottles Lo A (None) (1) (Days) Cr+6 0 4 2 Cr+6 Cr Te Cr to 9+5 Cr+6 O<sup>+</sup>CO Method Grab Grab Grab Grab Grab Grab Grab Grab 중 Matrix/Sampler Ground Water/ Mike Palm Ground Water/ Ground Water Mike Palm Mike Palm MW-4A Dup Sample No. MW-4A MW-4B MW-4C MW-15 MW-3 MW-5 **MW-7** S P Sample Identifier 44519-0012 44519-0014 44519-0010 44519-0009 44519-0008 44519-0013 44519-0015 44519-0011

	Shipment for Case Complete? N
Special Instructions:	Samples Transferred From Chain of Custody #
Analysis Key, Cr+6=Hexavalent Chromium	

(Signature) and Organization)	e Received by (Signature and Organization)	Date/Time Sample Condition Upon Receipt
	10-11 10-11 10-11	th-S1-01
		1336
		:
	10-15-14	10/15/19
		7.00



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### **COOLER RECEIPT FORM**

Client Name: OHO MH: 11					
Client Name: CH2, MHILL					
Project Name:					
AETL Job Number: 74730		AI			
	ived b				
Carrier: AETL Courier	$\square$ G:	SÓ □ F	edEx	$\Box$ UPS	
□Others:					
,					
Samples were received in: DCooler (1)	Other	(Specify):			
Inside temperature of shipping container No 1:	3.200	No 2:	, No	3:	·
Type of sample containers: ☐ VOA, ☐ Glass bo	ttles,	Wide mout		73.	ttles.
☐ Metal sleeves, ☐ Others (Specify):			- J ,		
How are samples preserved: ☐ None, ☐ Ice,	ĎBlue	Ice. Dry	Ice	•	
None, HNO <sub>3.</sub> 1				Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	MeOH
Other (Specify):	· · · · · · · ·				
	Yes	NO, explain b	elów	Name, if client	was notified.
1. Are the COCs Correct?	$\sim$	SVID Chromodole - MEN. 127 II I V - Carrier Coulds Mile represen-	. Ingelparation in	Commission (Commission Commission	- Mark
2. Are the Sample labels legible?	$\sim$				
3. Do samples match the COC?	$ \infty $				
4. Are the required analyses clear?	>0				
5. Is there enough samples for required analysis?					
6. Are samples sealed with evidence tape?	ď				
7. Are sample containers in good condition?	NIA				
8. Are samples preserved?	>				
9. Are samples preserved properly for the	$\sim$				
intended analysis?					
10. Are the VOAs free of headspace?	WH			-	
11. Are the jars free of headspace?	<b>J</b>	<del>-</del>			
Explain all "No" answers for above questions:					
	<u> </u>	,,,,		···········	



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Page: 1 A Ordered By

Ch2M Hill

1770 Iowa Ave Suite 200 Riverside, CA 92507-

Telephone: (951)276-3003 Attention: Tom Perina Project ID: 10006-7-100263

Date Received 10/15/2014

Date Reported 10/17/2014

Job Number	Order Date	Client
74730	10/15/2014	CH2M,R

## CERTIFICATE OF ANALYSIS CASE NARRATIVE

AETL received 8 samples with the following specification on 10/15/2014.

Lab ID	Sample ID	Sample Date	Matrix	Quantity Of Containers
74730.01	MW-15	10/15/2014	Aqueous	1
74730.02	MW-3	10/15/2014	Aqueous	1
74730.03	MW-4A	10/15/2014	Aqueous	1
74730.04	MW-4A DUP	10/15/2014	Aqueous	1
74730.05	MW-4B	10/15/2014	Aqueous	1
74730.06	MW-4C	10/15/2014	Aqueous	1
74730.07	MW-5	10/15/2014	Aqueous	1
74730.08	MW - 7	10/15/2014	Aqueous	1

Method ^ Submethod	Req Date	Priority	TAT	Units
218.6	10/22/2014	2	Normal	ug/L

The samples were analyzed as specified on the enclosed chain of custody. No analytical non-conformances were encountered.

The samples were analyzed within the holding time in accordance with the EPA Methods given in the attached work order form.

I certify that this data package is in compliance with the terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the condition detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted has been authorizedby the Quality Assurance Manager or his/her designee, as verified by the following signature.

	1		C. Razmana
Checked By:		Approved By:	J

Cyrus Razmara, Ph.D. Laboratory Director



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### **ANALYTICAL RESULTS**

Ordered By

Ch2M Hill 1770 Iowa Ave Suite 200

Riverside, CA 92507-

Telephone: (951)276-3003 Attn: Tom Perina Page: 2

Project ID: 10006-7-100263
Project Name: 0mega Chemical

Whittier, CA

Site

# AETL Job Number Submitted Client 74730 10/15/2014 CH2M,R

## Method: 218.6, Chromium hexavalent by Ion Chromatography QC Batch No: 101514-1

Our Lab I.D. Method Blank 74730.01 74730.02 74730.03 74730.04 Client Sample I.D. MW-3 MW-4A MW-4A DUP MW-15 Date Sampled 10/15/2014 10/15/2014 10/15/2014 10/15/2014 Date Prepared 10/15/2014 10/15/2014 10/15/2014 10/15/2014 10/15/2014 218.6 218.6 218.6 218.6 218.6 Preparation Method Date Analyzed 10/15/2014 10/15/2014 10/15/2014 10/15/2014 10/15/2014 Matrix Aqueous Aqueous Aqueous Aqueous Aqueous Units ug/L ug/L ug/L ug/L ug/L Dilution Factor 1 1 1 1 Analytes Results Results Results Results Results MDL **PQL** Chromium (VI) 0.02 0.05 ND 5.53 6.52 7.41 7.52



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### **ANALYTICAL RESULTS**

Ordered By

Ch2M Hill 1770 Iowa Ave Suite 200

Riverside, CA 92507-

Telephone: (951)276-3003 Attn: Tom Perina Page: **3** 

Project ID: 10006-7-100263 Project Name: 0mega Chemical Whittier, CA

Site

# AETL Job Number Submitted Client 74730 10/15/2014 CH2M,R

## Method: 218.6, Chromium hexavalent by Ion Chromatography QC Batch No: 101514-1

Our Lab I.D.			74730.05	74730.06	74730.07	74730.08			
Client Sample I.D.			MW-4B	MW-4C	MW-5	MW-7			
Date Sampled			10/15/2014	10/15/2014	10/15/2014	10/15/2014			
Date Prepared			10/15/2014	10/15/2014	10/15/2014	10/15/2014			
Preparation Method			218.6	218.6	218.6	218.6			
Date Analyzed			10/15/2014	10/15/2014	10/15/2014	10/15/2014			
Matrix			Aqueous	Aqueous	Aqueous	Aqueous			
Units			ug/L	ug/L	ug/L	ug/L			
Dilution Factor			1	1	1	1			
Analytes	MDL	PQL	Results	Results	Results	Results			
Chromium (VI)	0.02	0.05	6.93	42.5	7.41	3.48			



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### **QUALITY CONTROL RESULTS**

Ordered By

Ch2M Hill 1770 Iowa Ave Suite 200

Riverside, CA 92507-

Telephone: (951)276-3003 Attn: Tom Perina Page: 4

Project ID: 10006-7-100263 Project Name: Omega Chemical Whittier, CA

Site

AETL Job Number	Submitted	Client			
74730	10/15/2014	CH2M,R			

Method: 218.6, Chromium hexavalent by Ion Chromatography

QC Batch No: 101514-1; Dup or Spiked Sample: 74730.01; LCS: Clean Water; QC Prepared: 10/15/2014; QC Analyzed: 10/15/2014; Units: ug/L

	Sample	MS	MS	MS	MS DUP	MS DUP	MS DUP	RPD	MS/MSD	MS RPD
Analytes	Result	Concen	Recov	% REC	Concen	Recov	% REC	%	% Limit	% Limit
Chromium (VI)	5.53	10.0	13.7	81.7	10.0	13.1	75.7	7.6	70-140	<20

QC Batch No: 101514-1; Dup or Spiked Sample: 74730.01; LCS: Clean Water; QC Prepared: 10/15/2014; QC Analyzed: 10/15/2014; Units: ug/L

	LCS	LCS	LCS	LCS DUP	LCS DUP	LCS DUP	LCS RPD	LCS/LCSD	LCS RPD	
Analytes	Concen	Recov	% REC	Concen	Recov	% REC	% REC	% Limit	% Limit	
Chromium (VI)	10.0	9.73	97.3	10.0	10.2	102	4.7	70-140	<20	



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### Data Qualifiers and Descriptors

#### Data Qualifier:

#: Recovery is not within acceptable control limits.

\*: In the OC section, sample results have been taken directly from the ICP reading. No preparation factor has

been applied.

B: Analyte was present in the Method Blank.

D: Result is from a diluted analysis.

E: Result is beyond calibration limits and is estimated.

H: Analysis was performed over the allowed holding time due to circumstances which were beyond laboratory

control.

J: Analyte was detected. However, the analyte concentration is an estimated value, which is between the Method

Detection Limit (MDL) and the Practical Quantitation Limit (PQL).

M: Matrix spike recovery is outside control limits due to matrix interference. Laboratory Control Sample recovery

was acceptable.

MCL: Maximum Contaminant Level

NS: No Standard Available

S6; Surrogate recovery is outside control limits due to matrix interference.

S8: The analysis of the sample required a dilution such that the surrogate concentration was diluted below the

method acceptance criteria.

X: Results represent LCS and LCSD data.

#### Definition:

%Limi: Percent acceptable limits.

%REC: Percent recovery.

Con.L: Acceptable Control Limits

Conce: Added concentration to the sample.

LCS: Laboratory Control Sample

MDL: Method Detection Limit is a statistically derived number which is specific for each instrument, each method,

and each compound. It indicates a distinctively detectable quantity with 99% probability.



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## Data Qualifiers and Descriptors

MS:

Matrix Spike

MS DU:

Matrix Spike Duplicate

ND:

Analyte was not detected in the sample at or above MDL.

PQL:

Practical Quantitation Limit or ML (Minimum Level as per RWQCB) is the minimum concentration that can

be quantified with more than 99% confidence. Taking into account all aspects of the entire analytical

instrumentation and practice.

Recov:

Recovered concentration in the sample.

RPD:

Relative Percent Difference